

FEATURES OF THE OPEN GRAIN MARKET

To illustrate and explain the open market system of grain trading, certain articles written by W. Sanford Evans in the year 1921, but applying in principle and method to any period, are herein reproduced as they were published at that time in the Grain Trade News and the Weekly Market News.

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Market Places for Grain

**Grain Exchanges are only Associations for Providing a Room in Which
Traders can Meet to Bargain Under Simple Rules and
are Not Trade Combinations**

From the very beginnings of organized human society there have been markets, or fairs; that is, meetings of people for the exchange of commodities, or for their sale and purchase. This is true not only among the leading races of Asia and Europe, for when the Spaniards discovered Mexico they found an established system of markets and early travellers found markets in the native kingdoms of Africa and in the islands of the South Pacific. There has been nothing more obvious, even to the primitive mind of man, than that if some had goods and others wanted them, it was better that they should all meet together at some appointed place to do their bargaining, rather than that each individual should attempt to seek out some other individual who might be able and willing to make a trade with him. The early markets and fairs were the rudiments of the whole commercial structure of modern life. For certain kinds of buying and selling the primitive tents and booths set up at the market-places have developed into the rows of shops. The wholesale and retail sections of modern cities and towns are permanent markets, and the department store is a miniature retail market. Even in connection with the distribution of many of the commodities now ordinarily sold to consumers through shops, a useful function can still be performed by markets more nearly of the original type, such as markets for many kinds of farm and garden products.

Certain other kinds of buying and selling can best be carried on by the meeting of all interested buyers and sellers at one spot for direct competitive negotiations. It is thus we have grain markets, stock and bond markets, produce, cotton, coffee, sugar, pig iron, fur and wool markets. A grain exchange, corn exchange, board of trade, or whatever it may be called in different countries, is simply a market-place for grain, where any buyer or seller can appear in person or through an agent and can reach every other interested buyer and seller by direct word of mouth.

To operate the business of the world it is absolutely necessary that there should be a middleman organization. But the merchants and agents of which this organization consists should be able to get promptly into touch with each other and close their transactions with the least possible delay and difficulty. They need meeting-places, or markets.

The Winnipeg Grain Exchange, to take that as an example, is an organization for the purpose of providing a room, with proper facilities, in which traders can meet, under such simple rules as are necessary for the orderly conduct of business. It does not own any land or buildings, but rents the trading room and an office for its staff. It never either buys or sells grain, but only records and makes available to the public the

prices at which transactions have actually taken place in the market. It does not and cannot make, or even influence prices. It does not own elevators, or store or ship grain. It performs no commercial functions. It does not control the businesses of its members, for membership relates only to the privileges of the trading room. It pays no dividends because it makes no profits. It is merely an association of grain merchants, brokers, commission men and others for the purpose of providing a market-place.

In the interests of clear and correct thinking on grain problems it is very important that the real nature and function of grain exchanges should be recognized. It is very easy to slip into the habit of using the term as a general name for the whole middleman system of grain trading. The fact that the trading room is situated in the building in which a majority of the local grain dealers also have rented offices and that this building is popularly known as the Grain Exchange, makes the confusion of thought easier. The danger lies in the conclusions that may more or less unconsciously be formed. It is no doubt assumed by many persons that there is a central organization of all grain trading interests, which directs the policy and business methods of all branches of the trade; and that country elevator owners, terminal elevator owners, exporters, commission men, brokers and transportation agents are united in an association which plans or regulates the business operations of all these interests and co-ordinates them into some sort of a giant combination. As a matter of fact, there is no such general organization in existence in the grain trade. Each branch, such as the country elevators, the terminal elevators, the exporters and the brokers may have a trade association of its own, of just the same nature as the associations that exist among merchants in other lines of business, and two or three organizations have been formed for special and limited purposes, such as the Lake Shippers Clearance Association, to simplify and facilitate the physical movement of grain through the terminals, and the Winnipeg Grain and Produce Exchange Clearing Association, which was formed by traders in the futures market for the purpose of clearing their trades, but there is no central or controlling general organization for the grain trade. The only organization entitled to the name of "Grain Exchange" is the voluntary association for the specific purpose of furnishing a convenient market-place and the orderly conduct of the market.

That a grain exchange cannot be considered as identical with the middleman system of grain trading is shown by the fact that all the essential elements of this system were in existence for centuries before the first organized grain trading market was formed, and that there are still important grain trading countries, such as Russia and Australia, which have no grain exchanges corresponding to those in North America and in parts of Europe. Even the Argentine has only recently been developing the system of trading in central markets. At all times and in all countries there have been merchants, warehousemen and brokers, and the speculative element, which is inherent in grain trading, has always had to be provided for. To abolish grain exchanges would not alter any of the fundamentals of the problem. Grain trading could be carried on without grain exchanges, but undoubtedly important modifications in the system

as it now exists in North America, for example, would result from the doing away with the open market.

As long as the world continues to consider it wise to leave to private business the performance of the essential middleman function, just so long will there be a very strong case in favor of the open market system; and even if all the principal producing countries should establish some sort of government monopoly, it is not improbable that a central world exchange would be formed as the most economical and effective method by which these monopolies could trade with each other. Markets were one of the first inventions of man and they are likely to be one of the last he finds he can do without. The world has had so long experience of the advantages of markets over peddling that it is not necessary to enlarge upon the saving of time and cost effected. While the membership of grain markets is limited, yet a considerable proportion of the membership consists of brokers, whose business it is to execute the buying or selling orders of anyone who has grain or the money to buy it, and the result is that the prices made represent open competition between all persons who at any one time are prepared to buy or sell; and it is more satisfactory that prices should be made in this way and publicly announced than that there should be varying prices in private negotiations, which for the most part would remain unknown except to the immediate parties concerned.

One of the most important features of open market trading is the equality of opportunity it affords to every buyer and seller. The big trader has no advantage over the small trader in closing a transaction. It is a notable fact that the tendency to monopoly of trade by large corporations, which has been very manifest in many other lines of business, has never developed to any marked degree in grain trading, and this is unquestionably due to the facilities afforded to the smaller operator by the open market for buying, selling and hedging. Competition becomes very keen under these conditions, and small margins prevail. Although it is contrary to a very general impression, there are probably fewer large fortunes made in grain trading than in the trade in any other of the world's staple commodities. Money made out of grain has apparently never yet qualified any man for a place in the list of the wealthiest men in any country. Efficient merchants, who handle large quantities and hedge their transactions, can and should in time succeed in building up a substantial property out of comparatively small margins, but there are corresponding merchants in every other line of business who can show at least as great returns; and the risks of speculation are so great that the speculator in grain cannot often repeat a success without meeting many failures in the meantime. Develop-

ment along the monopolistic lines would be very much easier if there were no open markets.

Without open markets it is probably true that futures trading could not have been developed to the degree that now exists, and clear differentiation between speculation and merchandizing would not have come about. Whether this is an advantage or a disadvantage of the open market system will depend upon the conclusion one forms upon the net benefits or evils of allowing a part of the world's free speculative fund to carry the greater portion of the risk of grain trading.

How Prices Are Made by Supply and Demand

Facts About Quantities and Prices for Ten Years that Illustrate How Human Nature Fixes Values and How the Marketing System Works

To dispose of a large supply of any commodity, wheat for example, a broad demand must exist or must be created. Now, there are many classes or degrees of demand, in fact almost as many as there are of individual consumers. Some persons are very fond of wheat products, others are more or less indifferent whether they eat wheat or some other cereal, and millions prefer rye and a lesser number corn. Some persons form fixed habits in food and will make a sacrifice in other ways rather than depart from these habits, while others welcome variety and will readily change from one diet to another.

Again, there are the differences in the financial resources of individuals. A few have very large incomes and could and would pay a very high price for the few bushels of wheat they could eat, and would not be willing to go without. A larger class would deny themselves their full usual ration of wheat only if the price rose to several times the ordinary price. At any price short of what seemed ridiculous extravagance a considerable part of the great mass of consumers would insist on buying a little wheat for an occasional treat, but this kind of value decreases with every additional quantity obtainable. So, as the price came down, new and larger classes would enter the market with their demand until a point would be reached, somewhere, beyond which no wheat could be disposed of for human consumption, because no more wheat could or would be eaten. There are pretty definite limits to what the human system can take as food and any attempt at continued excess will bring its own check in ill-health, and the limits are narrower if excess is attempted in any one article. Beyond that point, wherever it may be, any balance of wheat remaining in the world would have no value whatever as human food, which is the most valuable use of wheat, because no one would give anything in exchange for it for that purpose, and it would have to be disposed of for cattle feed or for some other purpose altogether. Indeed, it is certain that long before the absolute limits of absorption by human beings was reached wheat would have declined to a price at which it would be in keen demand for feed.

The range of the possible exchange value of wheat is, therefore, between the almost unlimited price the wealthy wheat lover might pay and the point where wheat has absolutely no value as human food or reaches its competitive value with all other feeds for livestock.

Based on Human Nature

It is human nature that meets human nature when demand and supply compete. As the consumer has a great many needs and desires, he must

naturally seek to secure the satisfaction of each with as moderate an expenditure as possible, so that his available means will permit of the satisfaction of a large number of needs and desires; and each producer must seek to obtain as much as possible in exchange for his product in order that he may have the means to satisfy his needs and desires. The same individuals are both producers and consumers, producing one or two things and consuming many things, and it is therefore identically the same human nature that lines up on both sides of the contest between supply and demand.

When the available supply is relatively small, it is evident that some persons must go without their customary quantities. Those whose need is greatest or whose means are largest take steps to secure their own supply by offering more and more in exchange until the necessary number of possible consumers drop out of the list of seekers and there is just enough wheat to meet the remaining demand. When the supply is larger than usual there is no such competition among consumers, who know that a new and lower class of demand must be brought into the market to absorb the balance, and consumers bid down and down, or producers offer down and down until again the demand is equal to the supply.

No Unit More Valuable Than Another

Now, no parcel of wheat has any greater value to a purchaser than any other equal parcel of the same quality and equally available within the time required. Suppose there is 100,000 bushels of No. 1 Northern wheat for sale in each of twenty of the elevators at Ft. William-Pt. Arthur and that a buyer in Liverpool wants 100,000 bushels of No. 1 Northern. He could get what he wants from any one of these elevators, or part from one and part from others. No one lot, and no one bushel, would be worth any more to him than any other lot or bushel, and he would not be prepared to give more in exchange for one than another. Exactly the same condition would exist if, instead of all the wheat being in these Canadian elevators, different lots of equally useful wheat were also available at Chicago, New York, Buenos Aires, Sydney, Dalny, Karachi and Odessa. Landed at Liverpool by the time he needs it, none of this wheat has any greater value than any other parcel. He would not give any more in exchange for one bushel than another.

Utility of Last Unit Makes the Price

This obvious fundamental fact is, of course, the reason why prices all over the world, with allowance for quality and position, must always tend to maintain the same levels. But there is another bearing on the same fact. If the 2,000,000 bushels, or whatever the quantity may be, in the Canadian elevators or scattered all over the world, is more than human beings will use for food and 100,000 bushels must find its market among livestock feeders, then no other lot of the wheat can command a higher exchange value than that one lot. They are all of just the same value in the market. If the quantity is below normal requirements then the highest price that can be obtained for the last 100,000 bushels, or so, is the exchange value of the whole.

As long as human nature exists on both sides of the market, prices will be fixed in this way, and it would not seem possible for any statutes, or combinations or expedients of any kind to alter these principles or do more than perhaps interfere with their operation for very brief periods. Value in exchange must be relative to quantity, for as each successive unit is added to quantity there is what economists call "diminishing utility," as measured by what consumers can and will pay, until "marginal utility" is established by the last units added, and this becomes the measure of the utility of every unit in the supply.

Theory Compared With Facts

But is it really the case in actual everyday practice in the markets that the prices of wheat are subject to these influences? The facts for the ten years, 1904-5 to 1913-14, are shown in the diagram. This diagram is used because it presents the fundamental facts treated in this article in almost the only way they can be shown clearly.

Fig. 1 consists of solid black columns representing the total world's crop of wheat by cereal years. Fig. 2 gives high and low monthly prices of contract grade wheat at Liverpool and the straight black lines are the yearly averages of these prices. Fig. 3 gives general wholesale prices in the United Kingdom, because wheat prices must be judged by their relation to other prices and the value of money, since it is the proportion of a man's means he must give for wheat, rather than the number of cents, that counts. The diagram is so drawn that equal fluctuations represent the same percentage of change in all the figures.

Prices Actually Conform to Quantities

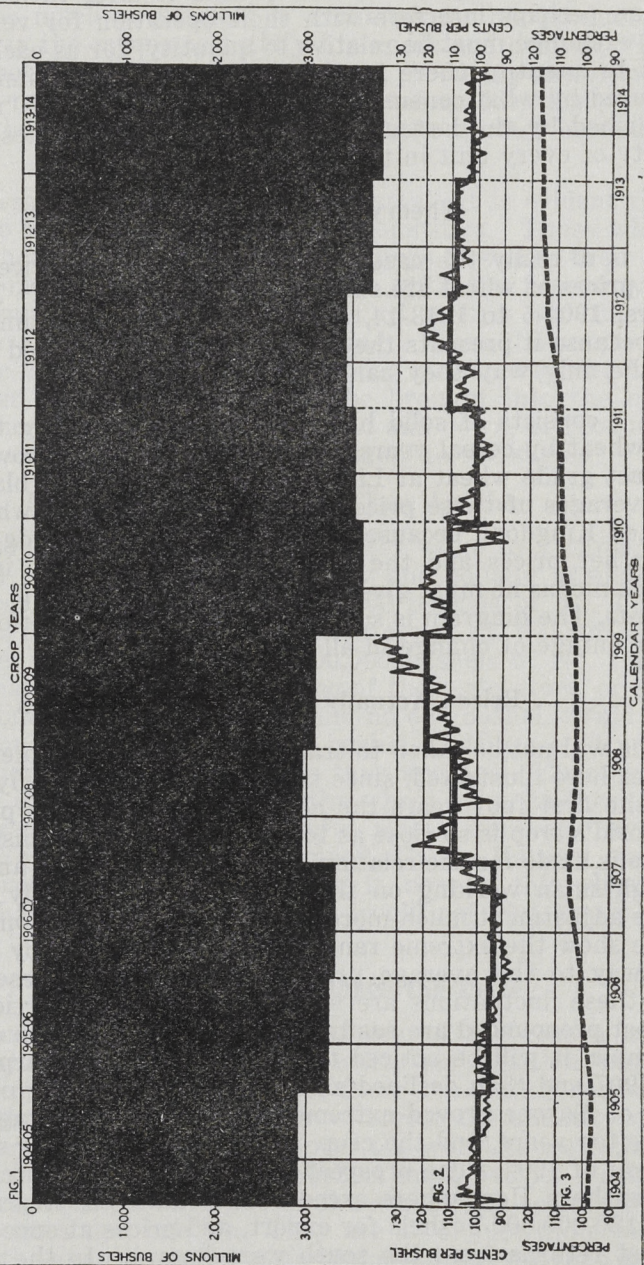
Space will not be taken to trace in detail the movements of quantities and prices here illustrated, since the facts speak so clearly for themselves. During the first four years the adjustment of average prices to the size of the world's crop is so close as to strike one with astonishment, for when allowance is made for the relation between wheat prices and general prices, no draughtsman working on the pure theory of supply and price could make the adjustment much more accurate. The fluctuations in the monthly price line show the extreme ranges of the movements by which the world felt its way to the average price that correctly represented quantities. Most of these fluctuations are very moderate in proportion, and many of those most pronounced are easily explained by the course of developments. For example, it will be noticed that prices went up sharply in the second half of 1907 and then declined sharply at the beginning of 1908. In 1907 the crop of Europe proved extremely disappointing, being the smallest in the whole ten years, and the crop of North America was smaller than any except that of 1904. The prospect then was for real scarcity, but the crop of the Southern Hemisphere exceeded expectations, Argentina alone having over 130,000,000 bushels for export, and prices at once dropped as soon as harvest returns from the south were known. In the summer of 1909 the Patten "corner" at Chicago created an artificial disturbance in quotations, but the outside world did not buy or sell much wheat at those prices.

WORLD'S WHEAT CROP IN RELATION TO PRICES.

FIG. 1 TOTAL WORLD'S PRODUCTION OF WHEAT.

FIG. 2 HIGH & LOW MONTHLY PRICES & AVERAGE BY CROP YEARS OF CONTRACT GRADE WHEAT AT LIVERPOOL

FIG. 3 BRITISH BOARD OF TRADE INDEX NUMBER OF GENERAL WHOLESALE PRICES



In the summer of 1910 there was a sharp dip to prices due to exceptionally heavy arrivals at Liverpool, this being an illustration of local supply and demand, for prices in the United States, for example, did not respond to this brief slump. In 1912 the Balkan war affected both demand and supply somewhat abnormally. Except in these few instances the price line proceeds by a series of comparatively small fluctuations.

Within Two Years at Most

To come back to the general relationship of average price to quantity, it will be noted that in two successive years, 1907-8 and 1908-9, the world had small crops, the two smallest successive crops in the period, and the price trend was upward for the two years. During the next two years the world had the two biggest successive crops in its history up to that date, and prices flowed downward for two years. It took two years to reach an adjustment in each of these cases largely owing to the effect of reserves carried over, which were extremely small at the end of 1907-8 and unusually large at the end of 1909-10. For the remaining three years we have again the extraordinary accurate yearly adjustment of average prices to quantities produced.

These Facts Should Be Studied

Every producer of wheat should very carefully study this diagram. It shows what were the actual facts for ten successive normal years, and no views as to market conditions should be entertained which will not square with the facts. If it is natural and inevitable that value should vary with relative quantity, can a producer find any year in the ten in which the average price was not approximately a fair reflection of quantities, and was not, therefore, on the whole a reasonable price? Any producer who sold at the low points in any year was unfortunate, but there were many lucky ones every year who received prices above par. Examine the price line carefully and it will be seen that there is no one month in the year, and no season, in which world prices are regularly high or low. It is not true, as anyone can satisfy himself, that prices are regularly depressed when northern farmers begin to market their crops and later raised again when these purchases are re-sold by dealers. It can be seen that during the ten years before the war speculative dealers working on that idea would have lost money more often than they made it, at least if their carrying costs are taken into account.

The World's Market System

During those ten years all market factors and influences were in full operation. There were grain exchanges, cash trading, futures trading; there were independent wheat merchants, co-operative companies, brokers, commission men; there were "speculators" by thousands. Indeed, this particular period is notable for two spectacular effects of a speculative character—the Patten "corner" in the summer of 1909, and the sharp "squeeze" in the summer of 1910 worked on three or four cargoes of wheat which Australian merchants had shipped before they secured a customer, and as prices were weakening all the time these cargoes were on the ocean

the owners took the risk of not selling "on passage," and the cargoes arrived at Liverpool unsold at a time there was ample supply and no one wanted to buy them except at a bargain price. The world's wheat price line may be followed for a great number of years without discovering instances as marked as these. But with all the influence of what is loosely called "speculation," and under the operation of all the complex machinery of grain trading, the net result was what appears in the diagram. That net result, even year by year, is unquestionably in remarkably close conformity with the theory of quantity and price. The law of supply and demand operated throughout that period, if not because of, or by the aid of, then at least despite, the great trading system the experience of centuries has evolved.

It will be well to examine some of the elements and the methods of this trading system.

Hedging Transactions and Futures Markets

One Aspect of Trading in Futures Which Provides the Important Element of Insurance Against Loss and Makes Small Margins Possible

Between September 1 and November 30, last, the farmers of the Prairie Provinces delivered 131,964,000 bushels of wheat, while the total delivered from September 1 to July 22 has been 185,426,000 bushels. A few millions of bushels may remain to be marketed before the crop year ends. Approximately 70 per cent of the whole farm surplus was moved in the first three months. Every bushel of these deliveries was sold, or could have been sold, for cash, as soon as the farmer's wagon reached the railway siding. There is no business day on which any wheat deliveries a farmer cares to make, in any position from the wagon to the lake terminals, cannot be sold for cash. The same thing is true for the farmers of other principal wheat-growing countries, yet this condition of affairs would be absolutely impossible unless a class of persons stood between producers and consumers who were ready to buy and hold and sell again.

Distribution Must be Adjusted

If wheat farmers market a large percentage of the supply in three months, they deliver what, on the average, it will take consumers over eight months to use. Consumers cannot buy much in advance of current requirements. If there were no intermediate, or middleman market, more than half the proportion Canadian farmers ordinarily deliver in three months could not be sold at all within that period, and if it were pressed on the market it would drive wheat prices down toward the vanishing point, for supply would enormously exceed effective consumption demand. Yet later in the year all this wheat would be in demand for consumption. It is the middleman's function to make the adjustment, so that the producer can sell at any time it suits him and the consumer can buy whenever he wants to.

It is probably not necessary to labor the point that the performance of this function is essential in modern civilization. No doubt everyone recognizes it, although some may think that in some way the government should do this work. Well, either the government must do it or it must be left to private enterprise, for it must be done. Later we may discuss the pros and cons of government merchandizing, but up to the present, except during extreme crises like the late war, the world has acted on the opinion that the marketing and distribution of wheat should be left to private business under regulation, and it is important, therefore, to understand the problem from the standpoint of the private merchant.

Conditions of Finance

A good many of the methods and practices of grain trading will become more easily intelligible if viewed in the light of the general conditions that must be met. One of the most important of these general conditions

is that of finance. In the first three months of the current crop year, as stated above, Western Canadian farmers marketed almost 132,000,000 bushels of wheat. The average value of that wheat, on the basis of No. 1 Northern, Ft. William, was over \$2.50 per bushel and the total value was, therefore, over \$300,000,000. That is a very large sum of money; and in the three months only a comparatively small quantity would have actually reached the ultimate consumers and have been paid for by them. The people of Canada would have consumed in that time less than 15,000,000 bushels. Some branches of the grain trade, including the millers, were carrying the greater part of that wheat. Now the grain trade in Canada, even with the addition of the foreign grain merchants who might within that period have paid for purchases, have no such amount of working capital. To indicate how large a sum it is, it may be mentioned that the total paid-up capital and reserve funds of all Canadian banks is only about \$260,000,000, so that all the banks in Canada could not with their own money have paid cash at Fort William for the wheat marketed in those three months. Yet the grain trade, which, of course, has only a small fraction of the capital of the banks, paid cash, or stood ready to pay cash, for every bushel. This was possible because, in addition to using its own capital, the grain trade was able to borrow a considerable percentage of the money required and because it was able to enlist the support of substantial sums of private investment money from those who were not strictly grain dealers at all.

Risks in Price Fluctuations

But the price of wheat is always fluctuating. Last autumn furnished an extreme example of a great and rapid decline in price. There were few occasions during that time when wheat could be held even one week and then sold again except at a heavy loss, the decline between September 1 and November 30 being \$1.03½ cents per bushel; and yet tens of millions of bushels were purchased by the trade for cash and carried over for many weeks. How is it possible that risks like this can be taken? A substantial part of the money required must, of course, be borrowed from the banks or other lending institutions, which must and do insist on safety for the funds they administer. All the risk must be taken by private money. Borrowers must put up margins and give such other security as will absolutely protect the banks. Yet the decline last autumn was sufficient to have wiped out all the working capital of the Canadian grain trade. Of course, there are times when prices go up and a profit can be made on purchases, and some persons may have the idea that profits in the long run would fully make up for losses. But we have an illustration during this past year of the fact that, if there were no way of protecting the investment, the risks of grain buying are such that the total accumulations of a lifetime might be lost in a few weeks. Nothing could be established as a regular business which held such risks. There are only a few individuals in any community who are so constituted that they will take big chances, unless with small surplus funds they can afford to lose, and it is a very rare individual who will do so regularly. The business of the world cannot be carried on upon those principles; and grain handling must be a regular business, always operating and always ready to buy as well as to sell.

Protection by Hedging

Buyers of grain must be able to protect, or insure, their capital, for otherwise capital would not be employed in that line of business at all. One way of rendering investment reasonably safe would be to buy so cheaply, compared with what consumers will probably pay, that the margin is ample to cover the risk. No one can ever tell for certain whether the price of wheat will go up or down, and to be safe a buyer would always have to allow for a possible decline in price. This method of protection would be very unfortunate for producers. If they had to cover in this way the risk which unquestionably exists, the prices they would have to accept would be very far below the prices they now receive. Another method of protection, or of distribution of the risk, has, however, gradually been developed and perfected, which makes it possible to buy from the producers on very narrow margins and yet have sufficient security for the investment to justify the free use of private capital and also to form a solid basis for loans from financial institutions. This method is the "hedging" of purchases and sales in the "futures markets."

Futures Markets

The futures markets are those which deal in well secured contracts for the future delivery of grain, as distinguished from the cash, or spot, markets, which deal in grain for immediate transfer. As the object of this series of articles is to discuss the principles and general conditions of grain trading, rather than the details, a full description of the system of futures trading, and the machinery by which it is carried on, will be deferred to a later occasion. One or two illustrations will, however, make its general character and purpose sufficiently clear.

In the first three months of the present crop year the grain trade was ready to purchase from Western Canadian farmers, for cash, 132,000,000 bushels of wheat at prices only a few cents below the prices quoted in the world's markets on the days the purchases were made, despite the fact that the prices of all commodities, including wheat, were fast tumbling and there was no assurance when the bottom might be reached, and despite the certainty that the greater part of this wheat would have to be carried for weeks or months before it could be sold to the ultimate consumers. They could do this because the elevator companies, the track buyers, or other purchasers, could sell as much as they bought on the very day they bought it, that is, they could find at almost any instant during business hours someone, whose ability to pay was guaranteed, who would enter into a contract to take delivery of the wheat they had bought, before the close of a certain month named in the contract, at a price which was calculated on the same basis as the price paid the farmer, and which allowed the few cents margin necessary for ordinary trading costs and profit. They could buy all the surplus over current consumption requirements which was offered in September, October and November, because they could obtain the security of a valid undertaking that if they delivered that quantity of wheat in October, November, December or May, whichever month they chose to stipulate in the contract, they would be paid in

cash a price bearing a relation to their purchase price. Practically all grain bought in the country is thus at once "hedged," or protected, and this is the only reason why capital can be freely employed in this business, why margins can be kept comparatively narrow, and why money can without danger be loaned against wheat thus bought. The risks of decline in price even before the wheat could be moved to the cash market at Fort William-Port Arthur, or other terminal, would otherwise be too great to justify the free use of money or close prices, and the risks of holding for ultimate consumption would be correspondingly greater.

Security of Contracts

The whole system depends upon the financial reliability of these contracts and this is amply secured. The man who wishes to "hedge" wheat offers to sell that quantity of wheat in the "futures" market. If he is a member of a grain exchange he can go upon the floor and do this personally, and if not he can place his offer through a member for a small commission. The grain exchange is, of course, only a place where buyers and sellers meet to do business; it is only a market-place, with rules for the orderly conduct of business, but has no part in the business transacted. There is, however, a special organization, quite distinct from the Exchange itself, which plays an essential role in connection with "futures" contracts. This is the Clearing House Association. As the point under consideration here is the reliability of "futures" contracts, the system of clearing trades and its importance need not be dealt with at this stage. A member of the Clearing House must pay a good sum for his membership and the Clearing House thus acquires a substantial capital, which is kept in liquid form. Its operating expenses are met by a small charge on every transaction.

How the Clearing House Operates

Every member must submit to it a full financial statement of all his assets and liabilities and these are passed upon from time to time by its committee with the same care and on the same principles as banks deal with the financial standing of applicants for loans. A limit is fixed to the volume of trading of every member, which cannot be exceeded unless a cash deposit is made with every bushel traded in. At the close of every market day all open trades are adjusted to the closing price of that day. If a member, either for himself or for a client, had bought the "hedge," which was put out against wheat purchased in the country, at a certain price, say \$2.00 per bushel, and on the next day the price of that future month declined in the open trading market to \$1.99 per bushel, this member would have to pay the Clearing House that very day one cent per bushel for every bushel represented in the transaction. If the price went up the member who sold the hedge would have to make a cash settlement for the amount of the rise in price. Adjustments are made both ways every day and the result is that the Clearing House always has in hand in actual cash enough money to cover any fluctuations in price that may occur up to the very day the wheat is to be delivered. Only if it failed to collect the money due it on these daily adjustments could the Clearing House ever be in a position in which it could not make good the contract entered into by delivering the wheat called for and by paying over the

price fixed in the contract; and in that case the Clearing House is itself legally liable and must make up the difference out of its own capital, for it guarantees all contracts handled through it. It is understood that there has been only one case in seventeen years in the Winnipeg Clearing House where a member has failed to pay up and the Association has had to accept loss, which is striking evidence of the care with which the business is conducted. By the system of clearing trades and dealing only in daily balances of the total account of each member with the Clearing House the work is simplified, but the essential fact is that the Clearing House is always in a position to make good any "futures" contract and its own capital stands back of its guarantee. Thus out of a business which seems to involve great risks, there has been developed a security that is of the very highest dependability. There is no commercial security that is superior to that of "hedged" grain.

Taking in Hedges

The man who sells a "hedge" against the actual grain he has bought, does not necessarily have to hold the grain until the month named and then make delivery of it in satisfaction of the contract. He can move his grain anywhere and sell it at any time he pleases, but he must then go again to the "futures" market and buy a quantity equal to the quantity he had previously sold in that market and in the same month. This purchase will exactly balance his former sale and he will be freed from all obligation in respect to it. The price when he buys will almost certainly be different from the price at which he sold, and may be higher or lower; but as the cash markets and the futures markets regularly move up and down together, anything he makes or loses on his futures transaction he will lose or make on his cash transaction. The effect of hedging is to limit the profit of the dealer to the margin he calculated on when the original purchase was made in the country. Under normal market conditions there can be no profit in hedged wheat beyond the few cents spread at which the wheat was bought. Rising prices do not mean any additional gain, but falling prices do not mean a loss. Hedging is a pure matter of insurance against loss and it involves the sacrifice of extra profits. Grain merchandizing can thus be made a regular business, observing the principles of all sound business, and operating primarily for an ordinary trading profit, which competition should keep to about the same dimensions as the margins in other businesses, which represent compensation for services performed.

Only one use of the futures markets has here been referred to—that of hedging grain bought in the country. This is the most important use, and it is used by farmers themselves, by millers, by exporters, by foreign importing merchants, and, in fact, by every class that handles grain, and in all these cases from the standpoint of protection or insurance. It is also the market in which speculative money operates. No one can sell cash grain who has not got it, and few will buy cash grain who are not in the business and therefore know exactly what to do with it; but anyone with the money or with good security can buy or sell futures.

This raises the big problem of speculation in grain, some aspects of which will be discussed in the next article.

Forms of Speculation in Grain Described

Ways in Which the Universal Desire to Take Risks for Gain Operates in Grain Trading, Much the Same as in All Other Kinds of Markets

A dictionary definition of speculation in commerce is as follows: "The act or practice of laying out money or of incurring extensive risks with a view to more than the usual success in trade; the buying of articles of merchandise, shares, stocks, or any purchasable commodities whatever in expectation of a rise in price, and thereupon a gain to the buyer; an anticipation on the part of a trader that demand will be excessive or that supply will be deficient: the term is generally used with some slight meaning of disapprobation."

By derivation the word is innocent enough, for it comes from a Latin verb, meaning to look, to see, to observe. To speculate, by its origin, implies that one is on the lookout and sees what others, less alert, do not see, and that one looks all around a thing, observing it in all its aspects and relations. Without this quality of alertness and vision the world would make very slow progress indeed; but when it is wedded to the desire for gain, as is inevitable in the case of most human beings, then the world becomes rather doubtful about it.

Speculation Almost Universal

There has never been a stage in the history of the race when men and women, and boys and girls, have not practiced the risking of something for quick and easy gain. When other opportunities are absent, games are invented for the purpose. Some carefully note and study all the facts and implications of the matter, and to that extent earn the right to an opinion; while others are ready to act on any stray "tip," or a mere guess. Some have large means and others have little; some never risk so much that its loss would seriously affect their position or that of their dependents, while others could offer no excuse for the risk they run. There is a big problem in morals involved, about which the world has never yet clearly made up its mind. Some of the results of the exercise of this almost universal characteristic are unquestionably advantageous. The dictionary from which the above definition is taken quotes as an example of the correct use of the word speculation, this sentence from Adam Smith: "The establishment of any new manufacture, of any new branch of commerce, or of any new practice of agriculture, is always a speculation, from which the projector promises himself extraordinary profits."

A Moral and Practical Problem

Other results of speculation are difficult to trace and some are undoubtedly harmful. From the standpoint of its own best interests, society has not yet been able to draw a definite line as to what should not be permitted because it is altogether hurtful or because it works more harm than good. There are only a few acts it prohibits under the name of gambling. Recognizing, therefore, that, both as a problem of personal morals and as a problem of the practical interests of society, speculation is still largely an open question, perhaps the best use that can be made of a short article is briefly to describe the chief forms of speculation in grain markets and indicate the tendencies of its effects. This article will have in mind that a large number of persons who have only vague notions of this subject and are predisposed to regard speculation in grain as creating only social disadvantages and as being different in kind or degree from speculation in all other commodities.

Most Grain Trading Not Speculative

To a great part of the operations of grain trading the word speculation cannot be applied at all. Grain merchandizing, as described in another article, is not speculation. In all that great business of buying grain in the country and moving it to the primary markets, of carrying over surpluses, of moving grain from primary markets to points of consumption, every care is taken to eliminate the speculative risk. These trades work for margins which they figure out on their original transaction; and the "hedge" has been invented and developed to safeguard those original margins, and the chance of extra profit from increase in price is sacrificed in order to avoid loss from decline. Absolutely all risk cannot of course be eliminated, such for example, as that involved in a few minutes' or few hours' delay that must ensue between the cash purchase and sale and the putting out or taking in of the hedge, but the risk is so minimized that the margins are smaller than in any other line of merchandizing.

Again, all that part of the grain trade which consists of commission and brokerage business is not speculative. This business is conducted on fixed commissions. The merchants, commission men and brokers form a big part of the active membership of any grain exchange.

"Spreading" or "Arbitrage"

Speculation, or the trading in fluctuations in price at the risk of loss but in the hope of gain, takes three principal forms. The first of these is common to all businesses with organized markets and is known as "arbitrage," although in the grains markets of North America it is commonly called "spreading." We have seen that no bushel of wheat anywhere in the world, allowance being made for quality, is worth any more to a purchaser than any other bushel that can be delivered at the time required. Subject to position and quality, all wheat should have the same price because it has the same value to a purchaser. This is a fundamental practical truth that applies to everything that is bought and sold. Silver bul-

lion in London, Antwerp, Paris, Berlin, New York, Bombay and Shanghai should maintain a parity of price. Stocks and bonds that are quoted in London, Paris, Berlin and New York should maintain a parity. The cost of transferring money, by buying and selling foreign exchange, should have a parity, so that it would be as cheap to settle a bill in France by buying exchange on Paris as it would be first to buy exchange on London and then buy London exchange on Paris, and vice versa, so that out of all alternatives a man may select the most convenient. Yet local conditions are always tending to throw each market a little out of line with the others. The arbitrage business, which is recognized as a legitimate business all over the world and in a financial centre like London gives regular employment to staffs numbering many thousands, keeps all markets close to a parity by standing always instantly ready to buy in the market that has fallen behind and sell at once in the market that has got out of line in advance. This is dealing in fluctuations in price and is accompanied by some risk, but it stabilizes world business and facilitates general trade.

The "spreaders" in a grain market will buy Winnipeg every time it falls below the Chicago or Liverpool parity and sell in one of the other markets, or sell Winnipeg and buy in another market when the opposite is the case. By buying in the weak market they strengthen it and by selling in the market that has jumped upward they help to check or steady it. As soon as prices have resumed a more normal relationship and the spread between the markets has narrowed, they sell where they bought and buy where they sold and clear their trades, and the profit they look for is the small fraction that represents the difference between the spreads. What they do helps to slow up a market that is rising faster than other markets, but it equally helps to raise the low market. "Spreaders" are neither bulls nor bears; they work for parity of price, and their operations are a check on both bear and bull raids on particular markets. Their motive is gain, but the money they make, when they make any, is a very small per cent of the price, and their work must be judged according to the value anyone places on the keeping of the principal grain markets always nearly in line so that merchandizing can be carried on in any of them at any time.

Pit Traders or "Scalpers"

The second form of trading in fluctuations in price is also common to all kinds of organized markets. Some owner of bullion, stocks, bonds, grain, cotton, provisions, is almost always ready to sell and some investor or actual merchant is almost always ready to buy either for immediate or deferred deliveries and the putting out and taking in of hedges is going on all the time. But despite the multitude of transactions of this kind, buying and selling orders cannot always exactly correspond in time or amount. Even in the largest markets there would frequently be pauses or gaps for a few minutes or for an hour or two. Again if there are many selling orders at any one moment and only a few buying orders, lower and lower prices may be offered and the decline may be rapid, but the probability is that within an hour or two the delayed buying orders may come in with a rush and the price will then rebound. There are fluctuations of price every day as indicated by the high, low and close quotations.

In these conditions a class of operators "sees" an opportunity and "speculates." When buyers are scarce and prices are weakening, an operator of this class takes a chance on more buyers appearing before the close of the market and buys, and as soon as more buyers appear he unloads. If the buyers are in strength at the beginning he sells, in the expectation of being able to buy back later in the day, when more sellers appear. This class of operators, which is relatively small in numbers but very active, aims never to carry an open trade at the close of the day. Whatever they buy, they sell again; and whatever they sell, they buy back the same day. Even with the most successful their losses are almost as frequent as their gains, but they close out losses quickly and take the first gain that appears, figuring both in the eighths of a cent. They are also neither bulls nor bears on general price levels, but operate on both sides of the market the same day. Whenever in their judgment the price movement is too rapid in either direction to be sustained throughout the day, or whenever there is a pause in the major transactions, they buy or sell in the expectation that that particular condition of the market is only temporary. Not many men have the kind of judgment, quickness and nerve to play this risky game, but it is played in every organized market. Its effects are only the effects of an hour or two and have nothing to do with the big, general movements of prices. It is because of their operations, however, that there is practically never a moment on a leading exchange when one cannot either sell or buy in any amounts. They prevent pauses and gaps and help to adjust the balance between the day's buying and selling orders. In the slang of the American grain markets these men are called "scalpers." Their work must be judged according to the importance attached to continuous activity in a market.

Both "spreading" and "scalping" require practical experience, close attention and prompt action. A man must be near the telegraph instrument for the one, and in the "pit" for the other. These two forms of speculation are therefore almost wholly professional. As already stated, the number of traders engaged in them is not very large and their influence is along the line of local and temporary adjustments of prices, rather than in the movement of price levels.

Speculation on Price Levels

The third form of speculation embraces investment on the strength of a man's judgment that the general price level is too high or too low. It has been proved by centuries of experience that the theoretical relation between supply and demand will ultimately determine price. It is also established that the value of money changes and that alterations in financial conditions and in political conditions affect all prices. It takes time for effects to work out. Some men attentively study all these things and note every new fact that develops, and believe they can forecast the ultimate effects. They try to make money out of what they believe to be their superior knowledge, judgment or powers of anticipation. If the market price of stocks, bonds, grain, or anything else has not yet reflected what they believe to be the inevitable result, they buy or sell in the expectation that when the result comes they will realize a profit worth taking a risk

for. Just as in everything else, there are also a great many who never earn the right to an opinion and many who cannot afford to lose the stake they have to put up. It is in this third form of speculation the public enters the trading markets. The proportion of grain exchange members who never, even as individuals, speculate in any one of the three forms is much larger than most people suppose, while the proportion of companies and firms which do not speculate, even "on the side," is very substantial indeed.

What Are the Effects?

Taking the world as a whole, there is in the total an enormous sum of free, speculative money in circulation, ready to flow toward any chance of profit that appears. A large part of it is quite cosmopolitan and will go anywhere; and most of it is not attached definitely to any one kind of market, but will jump from one commodity or enterprise to another. Some of this money flows in and out of the grain markets, just as it does with all other markets. There is no reason to believe the grain markets get more than their share. That this money should have some effects is inevitable. From the practical point of view, it is the possible effects on prices or on facilities for conducting or financing trading that are most important. Does speculation in wheat prices seriously interfere with the operation of the law of supply and demand, so that prices on the average are made unfair either to producers or to consumers? Does it make merchandizing easier or more difficult? Does it collect a heavy toll? Some considerations bearing on these questions will be noted in another article.

Limits of Effects of Speculation on Grain Prices

Of the three main forms of speculation in grain, we have seen that two—called in the slang of the market “spreading” and “scalping”—are confined to local or temporary adjustments of prices and are carried on by relatively small classes of professional traders. The operations of these speculative traders have influence in keeping all the world’s markets approximately on a parity, in steadying individual markets or bridging the gaps between merchandizing or hedging transactions, but they cannot have, and are not designed to have, much effect on the movement of general price levels. It is the third form of speculation which concerns itself with the general future course of prices. In it, anyone with money can participate. Men buy because they think prices will go higher and that they can sell at a profit, or they sell because they think prices will move downward and they can then buy back at a profit. The question is what effects this kind of buying and selling have upon prices and on the facilities for marketing.

This speculation is confined almost altogether to the futures market. The cash market, where every producer disposes of his grain and every consumer buys, is not directly operated in, to an appreciable extent, by any of the classes of speculators. The two markets must, of course, influence each other and at certain times must come together; but it is the cash market that must rule in the end. If consumers will not pay the price, there is nothing speculators or anyone else can do which can keep prices up; and, if demand is relatively great, there is nothing which can keep cash prices down, and future prices must adjust themselves to the facts.

Price Forecasts Necessary

Futures markets for grain exist because the handling of grain cannot be conducted without taking into careful account what prices in the future will probably be. Most of the wheat of the world, for example, is harvested in three or four months and yet must be made to last consumers for a year; and as consumers cannot buy much in advance of their daily requirements, the carry-over must be financed. A safe basis for financing must be found. More than is the case with any other seasonal product, the world is dependent on wheat grown at great distances from the points of consumption, which must of necessity leave the farms weeks or months ahead of consumption and at the expense and risk of someone other than the consumers. And yet it can never be certainly known what the consumers will ultimately pay or how much they will take at any given price. In the absence of fixed prices and compulsory consumption, which the world has never considered practicable, it is absolutely necessary to get some workable basis for financing and this involves the making of careful estimates or forecasts of prices and the correcting of these estimates continually. If there were no organized markets every individual merchant

would have to calculate a price basis for himself and there would be as many price bases as there were merchants. And if there were no way of distributing the risk or insuring against it, every merchant would have to provide such a margin in his buying as would render safe both his own capital and the money he borrows.

Clearing House for Forecasts and Risks

These conditions clearly point to the desirability, in the first place, of a sort of clearing house for forecasts of prices, and, in the second place, for a sort of clearing house for risks and some system of disposing of surplus risks. These are the functions of the futures market. In it, all opinions on the future course of prices meet in open competition and a resultant opinion is arrived at, which appears in the price quotations of the day. In it the merchant who has assumed a new risk matches this off against the risks which other merchants are being relieved of, because their wheat has been sold for consumption, and the balance is offered for sale to anyone who will assume it and give adequate guarantees.

Contracts are Well Secured

The method worked out for accomplishing these ends is the buying and selling of contracts for the delivery of wheat in certain stated months in the future. It should be made clear that to buy or sell in a futures market is to enter into a binding and well-secured contract against which a deposit must be made with a daily adjustment so that all fluctuations in price are provided for. Actual wheat can be secured under these contracts by anyone who wants wheat. If a miller or exporter buys an October future and holds it, he will get the wheat sometime in October. If anyone sells October future, and does not in the meantime transfer his obligation or effect a valid or legal offset by buying in the same market to an equal amount, he will have to deliver the actual wheat before the close of the market on October 31. A futures contract is a real thing and calls for actual grain and unless a man can pass on to someone else the obligation he has assumed he must fulfil that contract, and in the meantime he must put up in cash or approved securities sufficient to ensure that fulfilment, no matter how prices may have moved.

Margins are deposits on these contracts. Until the actual grain passes, the full cash price is not put up. This is the universal practice in business transactions. If one contracts to buy land, or anything else, at some date in the future, it is only in extraordinary circumstances he pays the full purchase price until delivery is made. He makes a deposit. There is this difference between deposits on grain contracts and most other deposits in that by the rules of the Clearing Associations these deposits are adjusted every day so that the transaction can be carried out or transferred to someone else without any difficulty or risk of default.

Hedging Transactions

It is because well secured contracts can readily be obtained for future delivery that merchants, millers and farmers are able to protect themselves against the possibility of serious loss on the wheat they buy or

carry over. Sales and purchases of futures for the purpose of protecting transactions in actual wheat are called "hedged." The merchant who holds wheat in the country sells in the futures market, that is, he finds someone who will guarantee to take that wheat at a certain price in a stated month. If the merchant, before that date, finds a customer for the actual wheat, he then buys in the futures market, which means that he finds someone else who will guarantee to deliver the quantity of wheat at the specified time, or, in other words, he transfers to another his obligation under the first contract he made. He has the protection of the guaranteed contract in the meantime. A large part of the transactions in futures markets is the buying and selling that represents the putting out and taking in of hedges. Some merchants are selling to cover a risk they have just undertaken and other merchants are buying to remove the cover they have had on wheat which they just sold for consumption or export. These transactions partially or wholly offset each other every day. But during the greater part of any season more wheat is being purchased or carried than is being sold for consumption or export, and even after the risks are balanced off against each other, there remains a surplus of risk in that market which for the time being can have no offset. The speculators carry the balance of risk.

Speculative Risk is Inherent

In effect, merchants pool all their risks in the futures market. Some risks are being put in and some taken out every day, but there is nearly always a big balance of risk in the pool. It is a real risk, for it represents wheat bought for cash at certain prices and there is no certainty about what consumers will ultimately pay for it. It is speculation to assume risks of this kind. There is a speculative element inherent in grain merchandizing which cannot be eliminated. The futures market separates that element from merchandizing proper and permits it to be dealt with as a thing by itself.

In considering this subject of grain speculation it must therefore be clearly understood that it is not a question between speculation and no speculation. There is a real and inevitable risk that must be met in some way by someone. The only question is whether in the system of futures trading speculation does more practical harm than good and whether it would be better to go back to the earlier system, which still prevails in some parts of the world, under which merchants and producers had to carry all the risks, or whether some other kind of system could be developed which would be better than either.

Limitation on Speculation

As the impression is very general that the system of futures trading gives an easy opportunity to speculators to unduly depress or inflate prices to the disadvantage either of producers or consumers and that these two classes share between them a heavy charge on account of speculative profits, it may be well to note briefly some of the facts and conditions which should be borne in mind when conclusions are being formed on this subject. If there are certain opportunities for manipulation, there are also

pretty definite limitations in the system on the power of anyone to cause very great or lasting effects.

Every speculator who buys must sell again and every speculator who sells must buy again and in exactly the same amounts, and he must close his transactions in the same market in which his original deal was made. Only a grain farmer can ever sell grain without buying and only an ultimate consumer can ever buy grain without selling it. Everybody in between must buy as much as he sells and sell as much as he buys. Every speculator must be on both sides of the same market within the period covered by his original contract. He cannot sell at Winnipeg and go off and buy at Chicago. He must buy again at Winnipeg, and any trades he opens at Chicago he must close again at Chicago. The pressure of speculative buying and the pressure of speculative selling in connection with any future month are in the aggregate exactly equal in every market. These pressures may be somewhat differently distributed throughout the period and may thus have temporary effects. There can be no such thing as an operator staying on the selling side of the market for any longer than a few weeks at most, for he must buy back all he has sold, either as futures or as cash wheat, before the close of the month traded in. Indeed, "short" selling involves more difficulties than operations on the "long" side. If anyone attempts big operations on either side, he momentarily upsets the calculations of everyone else who has opened trades, who want to eliminate this disturbing factor, or profit at his expense. The "short" must buy back all he has sold, he must actually go out and get that amount of grain or grain contracts and there a great many who will be disposed to sit back and wait for him and make him pay to the limit. On the other hand, the big "long" knows that all the speculators who sold to him must buy again and he can wait until they become anxious. The prospect of working a corner by buying more than the market can buy back or deliver, is somewhat more attractive than a big "bear" operation, but as Leiter found out when he tried to "corner" July wheat at Chicago in 1898, the risk is tremendous.

Speculation Individualistic

Speculation must always be individualistic. It is seldom any two men exactly agree on probable price movements, and the course of grain prices is one of the most difficult of all to forecast. Positive and very prompt action is necessary to seize a profit or avoid a heavy loss. Grain speculation is not the kind of business in which directors' meetings can be called before action is taken, and much the same difficulty exists with joint action by a group. Speculators operate mostly as individuals, and very large aggregations of capital are not often in the hands of any one operator. A great many different individuals may at any one moment have the opinion that prices are too low or too high and may all buy or sell at about the same time, but differences of opinion then at once begin to appear and a majority of the speculative money never long remains on one side of the market.

Again, nobody can sell unless somebody buys; and nobody can buy unless somebody sells. The buying always exactly equals the selling. It

is true that either buyers or sellers may at any one time be the more eager, or the more ready to take a risk, but there can be no transaction unless there is a buyer for every seller, and the recorded prices are the prices of actual transactions. Without doubt, there are more persons disposed to open a transaction on the buying side than on the selling side, for it seems more natural to most to buy for a rise than to sell in anticipation of a decline. But in the futures market both "long" and "short" trading are exactly the same in principle and unless somebody sold before he bought nobody could buy before he sold. The transactions represent different views on the course of prices and the only way of expressing in the market the opinion that prices are too high is to sell first.

Speculators' Profits Paid by Speculators

In all transactions in the futures market the seller is certain to lose if the buyer gains, and the buyer is certain to lose if the seller gains. One operates in anticipation of a rise and the other of a decline. One party must lose as much as the other gains. The actual money paid over to the winner is the margin put up by the loser which has been kept adjusted to the difference between the price when the contract was made and the price when it was closed out. Nothing is directly contributed to the speculative fund either by producers or consumers. The effect of hedging is that merchants pay in to the fund, if the price goes up, the profits they would have made if they had not hedged, and they draw out of the fund, if the price goes down, the amount they would have lost if they had not hedged. The speculative fund is an insurance fund for merchants, and for the rest it circulates back and forth among speculators, paying brokerage at every turn. If any one man owned all the fund, he would never allow it to be employed as it is in the futures market. It is an exciting game for the speculator and calls for the careful study of all developments in production, consumption and finance, but it does not essentially differ from games of chance in the respect that money merely changes hands. Effects on producers and consumers must be sought in any possible unfair or artificial influences of futures prices on cash prices, rather than in any direct contributions to the speculative fund.

Effect on Cash Prices

The question whether trading in futures does or can produce any marked effects of an artificial or prejudicial nature on cash prices should be studied in the light of the history of prices. What it has done in the past should be capable of demonstration. Without attempting here any analysis of the facts, the reader is referred to one of the articles lately published in this series, that on "How Prices are Made by Supply and Demand." In connection with this article a diagram was published showing quantities and prices for the ten years before the war. The producer of wheat was urged to very carefully study that diagram, because it represented the facts and no views should be entertained which did not square with the facts. Speculation had free play during that period and yet "the net result, even year by year, is unquestionably in remarkably close conformity with the theory of quantity and price. The law of supply and demand

operated throughout that period, if not because of, or by the aid of, then at least despite, the great trading system the experience of centuries has evolved."

Temporary effects of speculation there undoubtedly are, some in the nature of inflation and some of depression, but the records do not support the idea that speculation can for any considerable time force prices to artificial levels. There are definite limitations upon manipulators and most speculators never consciously or deliberately attempt to manipulate. They only try to forecast what the true relation of supply and demand will prove to be, and the penalty of guessing wrong is that they lose money. It is an open question in morals whether it would be better for the world to leave the speculative risk as a necessary part of merchandizing, rather than allow it to be handled by itself, as speculation, without the speculator necessarily having to be a merchant at all. The practical advantages claimed for the present system are obvious, that it largely confines the risk to free speculative money, the loss of which does not much disturb the actual invested and working capital of productive businesses; that it distributes the risk among a large number of persons; that it results in the establishment of forecasts of prices which the events show to be fairly accurate on the whole; and that it helps to keep the price line sensitive to all fundamental changes in conditions and to facilitate buying and selling by making a broad and active market.

